
City of Fremont Initial Study

1. **Project:** City of Fremont Renewable Energy Ordinance
2. **Lead agency name and address (including e-mail address/fax no. as appropriate):** City of Fremont Planning Division, 39550 Liberty Street, Fremont, CA 94537
3. **Contact person and phone number (including e-mail address/fax no. as appropriate):** Scott Ruhland, Associate Planner, City of Fremont Planning Division, sruhland@fremont.gov, 510-494-4453
4. **Project location:** City of Fremont, Citywide
5. **Project sponsor's name and address (including e-mail address/fax no. as appropriate):** Scott Ruhland, Associate Planner, City of Fremont Planning Division, 39550 Liberty Street, Fremont, CA 94537, sruhland@fremont.gov, 510-494-4453
6. **General Plan designation:** Multiple Designations – Residential, Commercial, Industrial, Public Facility, Open Space
7. **Zoning district:** Multiple – Residential, Commercial, Industrial, Public Facility, Open Space
8. **Description of project:** The project involves a City-initiated Zoning Text Amendment to amend current regulations for solar and wind energy systems to adopt a new Renewable Energy Ordinance to encourage and regulate the installation of private solar and wind renewable energy systems as accessory uses for on-site production and consumption. This includes procedural regulations and standards for the placement and design of such systems on private property that addresses the public health, safety and aesthetic quality of the City as set forth through the goals and policies of the General Plan.

The Renewable Energy Ordinance anticipates facilitating the development of personal solar energy systems and wind energy systems. Wind Farms for the purpose of producing electricity for off-site use is already regulated by the current Zoning Code. Solar energy systems are largely governed by State law and would include the placement and use of photovoltaic solar panels on private property for electricity generation. The ordinance assumes one solar energy system per lot or parcel. Typically, solar panels are placed on a rooftop and extend 12 to 18 inches about the surface of the roof. In some cases solar panels may be configured on a ground mounted array tilted or angled in the direction of the sun. Solar arrays are typically built on frames or accessory structures that extend approximately 4 to 10 feet off the ground but in some cases may be permitted as high as 24 feet, in parking lots for example. Solar arrays would be an allowable use within parking lots in lieu of parking lot landscaping.

Wind energy systems anticipated by this ordinance include both roof mounted and ground mounted small wind turbines with blade diameters in the 5 to 25 foot range. This is a reduction from the current standard which allows up to a 35 foot diameter. Roof mounted turbines are mounted to the roof of a structure and generally have blade diameters of 5 to 7 feet. Roof mounted wind turbines not more than 10 feet above the structure roof line with a turbine diameter of 5 feet or less and not located on a Fremont Register Resource (Historic Resource) would be a permitted accessory use. Ground mounted wind turbines would generally have blade diameters in 10 to 20 foot range. Ground mounted wind turbines not more than 40

feet in height on commercial and industrial properties would also be considered a permitted accessory use. Roof or ground mounted wind turbines that exceed these limits would require discretionary review. All renewable energy systems would be subject to site plan and architectural review and be subject to additional standards applicable to accessory uses.

The ordinance is intended to allow one wind turbine on residential parcels less than 20,000 square feet and on commercial parcels located in the City or Town Centers. Two wind turbines would be allowed on parcels greater than 20,000 and other commercial parcels. There is no limit on the number of turbines on parcels greater than one acre in size, or parcels designated as public facility or industrial. Ground mounted wind turbines would be allowed up to 60 feet in height on parcels less than one acre or any size parcel located above the Toe of the Hill (TOH). The current ordinance also allows heights up to 60 feet in residentially designated areas. Ground mounted turbines up to 90 feet high would be allowed for all other parcels which is a reduction of the current maximum height of 100 feet. Ground mounted vertical axis wind turbines less than 40 feet in height and below the TOH would be a permitted accessory use. All other ground mounted wind turbines would be subject to individual discretionary review of a conditional use permit or zoning administrator permit.

9. **Surrounding land uses and setting:** The City of Fremont is a large and diverse community in southeast San Francisco Bay with multiple land uses and settings. These include protected open space areas in the Hills along the eastern boundary of the City, and in the Baylands along the western boundary of the City; single-family residential neighborhoods; multi-family housing in select locations; commercial centers and corridors throughout the City; and, industrial areas in the south and west portions of the City.

10. **Congestion Management Program - Land Use Analysis:** The project analysis must be submitted to the Alameda County Congestion Management Agency for review if “Yes” to any of the following:

<input type="checkbox"/>	YES	<input checked="" type="checkbox"/>	NO	This project includes a request for a General Plan Amendment. If yes, send appropriate forms to Alameda County Congestion Management Agency.
<input type="checkbox"/>	YES	<input checked="" type="checkbox"/>	NO	A Notice of Preparation is being prepared for this project.
<input type="checkbox"/>	YES	<input checked="" type="checkbox"/>	NO	An Environmental Impact Report is being prepared

11. **Other public agencies required approval of involvement:** None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The following list indicates the environmental factors that would be potentially affected by this project. Those factors that are indicated as a "Potentially Significant Impact" in the initial study checklist are labeled "PS" while those factors that are indicated as a "Potentially Significant Unless Mitigation Incorporated" are labeled "M".

Aesthetics	Agriculture and Forrest Resources	Air Quality
Biological Resources	Cultural Resources	Geology / Soils
Hazards & Hazardous Material	Hydrology / Water Quality	Land Use / Planning
Greenhouse Gas Emissions	Mineral Resources	Noise
Population / Housing	Public Services	Recreation
Transportation / Traffic	Utilities / Service Systems	Mandatory Findings of Significance

PREVIOUS ENVIRONMENTAL ANALYSIS: None

DETERMINATION BY THE CITY OF FREMONT:

On the basis of this initial evaluation:


X	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

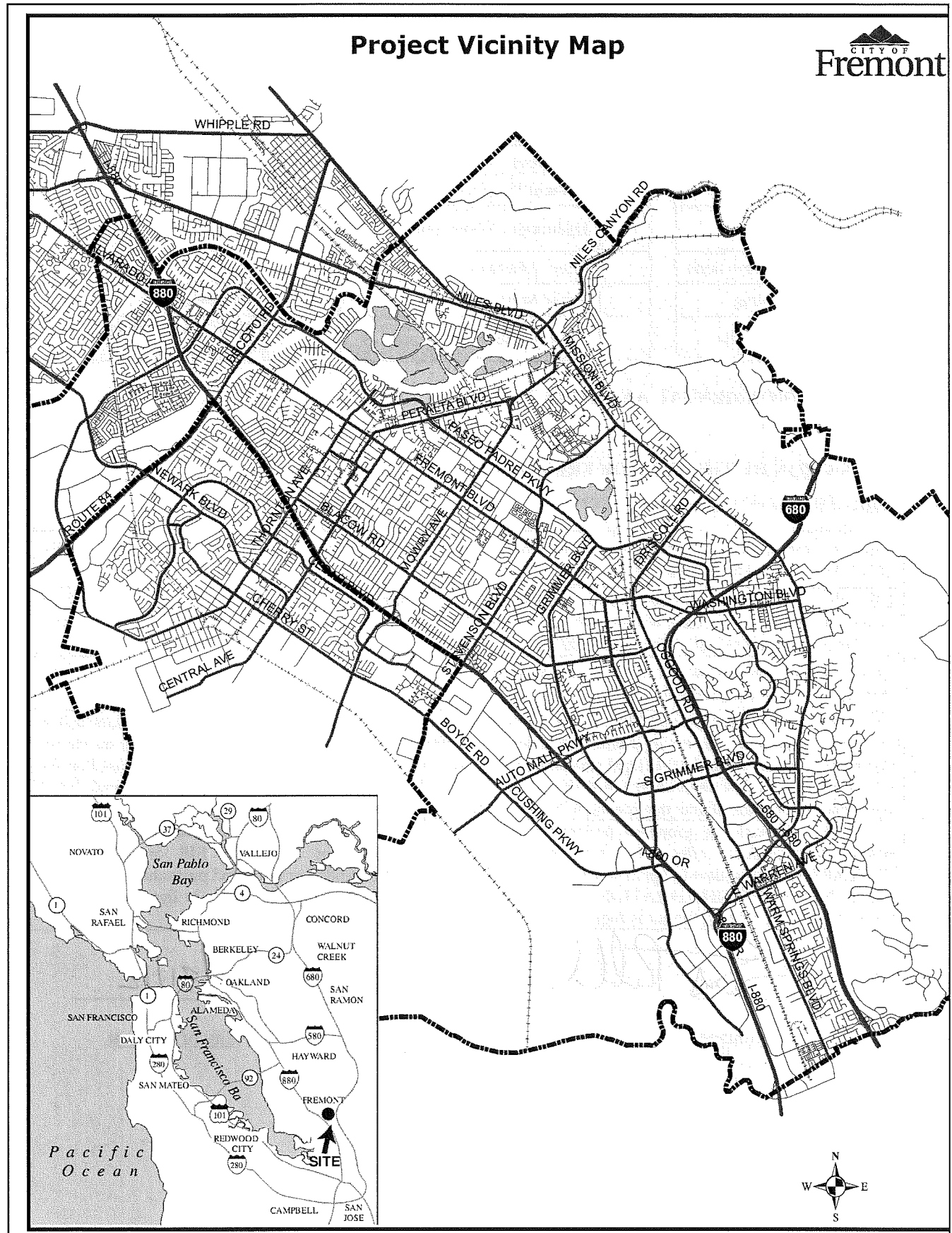
Signature: 

Date: 1/31/12

Printed Name: Scott Ruhland

For: City of Fremont

Senior Planner Review: 



I. AESTHETICS - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Have a substantial adverse effect on a scenic vista?			X		2,8, 11
b	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X	8, 11
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?			X		2,3, 8, 11, 13 27, ,A,B
d.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X	3,11,A

Comment: The City of Fremont is located in the southeastern portion of the Bay Area. The City sits in the Bay Plain, a flat area between the Bay and southern East Bay Hills. The City is comprised primarily of single-family homes located throughout the Bay Plain. Commercial centers and corridors exist throughout, and the City's employment districts are located in the west and south parts of the City. The City is developed in a suburban fashion with a mix of mostly one and two story buildings for residential, commercial, and industrial use with numerous utility installations and other appurtenances located throughout. Notably taller buildings exist in the City's industrial areas and major utility corridors for high voltage transmission lines that either extend across the SF Bay to the Peninsula or connect to the major PG&E Newark Substation located on western edge of the City at the end of Auto Mall Parkway. Noted scenic resources of the City's General Plan include the broad view of the baylands and SF Bay to the west and the Hills that rise above the City to the east. These areas are known as the open space frame of the City.

The proposed ordinance will not have a direct aesthetic impact on the community or create new zoning district and uses, but would indirectly allow for incremental change in coverage and heights of accessory structures within existing zoning districts. The ordinance was developed from a combination of regulations and guidelines from other cities, the American Wind Energy Association, the American Planning Association, and the California Government Code and has been crafted specifically to Fremont's aesthetic concerns. The City's existing Wireless Telecommunications Ordinance was also used as reference and comparison since design standards for wind turbines share similar characteristics to wireless telecommunications facilities. Adoption of this ordinance would allow subsequent projects that could result in the placement of wind turbines on private property. However, such projects are considered utilitarian and similar to other utility installations and will be considered individually if environmental review is required based on the specific nature of a particular project.

The Ordinance would allow some ground mounted wind turbines up to 90 feet in height at the highest point allowed, although it is anticipated that most installations would be 40 to 60 feet in height which corresponds to similar allowances in the City's Wireless Telecommunications ordinance and height requirements in the Zoning Ordinance. Lighting will not be allowed on turbine tower unless required by some other agency, such as the Federal Aviation Administration (FAA). The general aesthetic of wind turbine installations would be similar to other vertically oriented features common in the urban landscape, such as that of a street lamp, utility pole, wireless telecommunication facility, or flag pole.

The ordinance requires discretionary review of all wind turbine projects with the exceptions of roof-mounted wind turbines that project less than 10 feet about the roof line, have a diameter of 60 inches or less, and not located on a Fremont Register Resource, and ground mounted facilities equal to or less than

40 feet in height and located on commercial or industrial parcels. However, the ordinance requires site plan and architectural review of all projects regardless of discretionary review. In general, the limited number of installations on individual sites is compatible with the surroundings and character of various areas of the City and it would have no significant impact on aesthetics due to design controls and standards of the City.

The ordinance would also allow the construction of solar arrays in parking lots or on other surfaces. The utilitarian nature of such systems would typically blend well with utility function of parking lots. Parking lots are considered a good location for solar arrays given their ability to provide shade and reduce the heat island effect and provide an efficient location for such a system. Aesthetic impacts would be minimal and considered in a similar to other structures, utilities and appurtenances developed in an urban area. The limited number of installations on individual sites is compatible with the surroundings and character of various areas of the City and it would have no significant impact on aesthetics due to design controls and standards of the City.

- II. AGRICULTURE AND FOREST RESOURCES** - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X	19
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X	20
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?				X	NA
d.	Result in the loss of forest land or conversion of forest land to non-forest use?				X	NA
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to nonforest use?				X	NA

Comment: There is no impact to agricultural resources due the small scale and size of the energy systems considered by the ordinance.

III. AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Conflict with or obstruct implementation of the applicable air quality plan?				X	21
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X	8, 21
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X	8, 21
d.	Expose sensitive receptors to substantial pollutant concentrations?				X	21
e.	Create objectionable odors affecting a substantial number of people?				X	NA

Comment: The City of Fremont uses the threshold of significance established by the Bay Area Air Quality Management District (BAAQMD) to assess air quality impacts of construction, area, and operational related to criteria pollutants of the adopted Clean Air Plan. The Clean Air Plan focuses on improvement of air quality throughout the basin. A network of BAAQMD monitoring stations continually measures the ambient concentrations of these pollutants for reporting purposes. The closest such monitoring station is #1014 at 40733 Chapel Way in Fremont. Ozone precursors and particulate matter are the primary air pollutants of concern for development projects. These include Reactive Organic Gases (ROG), Nitrous Oxides (NO_x), and Particulate Matters (PM₁₀ and PM_{2.5}). Thresholds are whether a project would exceed the emissions of 10 tons per year or 54 lbs per day for ozone precursors. General conformity to the Clean Air plan considers qualitative analysis of consistency with planning assumptions and growth estimates for the City and Bay Area.

There would be not be an impact to air quality since it would not conflict with an air quality plan or violate any air quality standards. The adoption of this ordinance would also not result in the creation of objectionable odors.

IV. BIOLOGICAL RESOURCES - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X		8, B

b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X	8
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X	8
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X		8, B
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X	3,8, 24
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X	8

Comment: The City of Fremont is located in the southeastern portion of the Bay Area. The City sits in the Bay Plain, a flat area between the Bay and southern East Bay Hills. The City's Hill Area and Baylands are primarily undeveloped and characterized by open space and natural features intended for preservation. The City has numerous utility installations located throughout such as lattice electrical towers, wireless telecommunication facilities, utility poles and radio transmission towers.

Solar energy systems anticipated by this ordinance would have no direct impact on biological resources given their primary method of attachment to a roof of a structure. These facilities are already permitted by State law and are not associated with impacts to biological resources as they are considered an extension of a buildings or part of the overall roof structure. Additional small accessory structures may be affiliated with primary structures on a site. Accessory structures are an already allowed and controlled use within the Zoning Code. By the very nature of being accessory, the solar systems will not result in expansion of the range of uses in the City and cause a significant impact to biological resources, including reductions in available habitat.

Small wind energy systems anticipated by this ordinance could be up to 90 feet tall in some areas, but more likely will range in the 40-60 feet height range, and are not considered tall enough to interfere with bird migration patterns. Further, per the ordinance requirements, only one small wind turbine system would be allowed for the majority of parcels in Fremont. They would not be installed in dense enough configurations to create a windwall effect for birds. According to the American Wind Energy Association the dispersed nature of wind turbines, developed intermittently throughout the City, would not interfere with birds, similar to other dispersed objects in the city such as electrical poles and wires, telecommunications facilities, satellite dishes, radio transmission towers and other utility appurtenances. Further, wind turbines are not permitted in areas designated as Resource Conservation and Public Open Space on the General Plan Land Use diagram. This area includes the entire Baylands Community Plan Area along the western edge of the City; the area most recognized for bird populations in the City. No wind turbines would be permitted in these areas, further lessening any potential effect on bird populations.

V. CULTURAL RESOURCES - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.57?				X	3,27
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				X	28
c.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X	NA
d.	Disturb any human remains, including those interred outside of formal cemeteries?				X	NA

Comment: There would be no direct impact to cultural resources. Alterations of historic resources are already subject to discretionary review per the City's Historic Resources Ordinance. Such project would be reviewed for conformance with the Secretary of Interior Standards for Historic Properties. The proposed ordinance would have a less than significant impact on historic resources.

Also, should any human remains or historical or unique archaeological resources be discovered during site development work, the provisions of CEQA Guidelines, Section 15064.5(e) and (f) for notification and evaluation will be followed to reduce impacts to a less than significant level.

VI. GEOLOGY AND SOILS - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X	6
	ii) Strong seismic ground shaking?				X	6
	iii) Seismic-related ground failure, including liquefaction?				X	6
	iv) Landslides?				X	6
b.	Result in substantial soil erosion or the loss of topsoil?				X	6
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X	6
d.	Be located on expansive soil, as defined in California Building Code), creating substantial risks to life or property?				X	6
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X	6

Comment: The adoption of this ordinance would not impact geology or soils. Appropriate engineering drawings and calculations are always required for building permits for all structures and will be reviewed for conformance with the California Building Code.

VII. GREENHOUSE GAS EMISSIONS - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X	23
b.	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				X	22

Background: With the passage of the Global Warming Solutions Act of 2006 (Assembly Bill 32), California acknowledged the role of greenhouse gases (GHG) in global warming and took action to reduce GHG emission levels. AB 32 set a statewide goal of reducing GHG emissions to 1990 levels by the year 2020. In doing so, it contemplated economic expansion and growth of population to 44 million people by 2020. It called for the state's Air Resources Board (CARB) to prepare a Scoping Plan encompassing all major sectors of GHG emissions for achieving reductions consistent with AB 32's goals. The Scoping Plan, adopted in December 2008, creates an overarching framework for meeting the GHG reduction goal of returning to 1990 emissions levels by 2020. The adoption of this ordinance would not result in the generation of greenhouse gas (GHG) emissions. In fact, the project could, and is intended to result in the overall reduction of GHG emissions.

VIII. HAZARDS AND HAZARDOUS MATERIALS - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X	NA
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X	NA
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X	NA
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X	18
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X	NA
f.	For a project within the vicinity of a private airstrip, would				X	NA

	the project result in a safety hazard for people residing or working in the project area?				
g.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	NA
h.	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	29

Comment: The adoption of the ordinance would not result in any impact related to hazards or hazardous materials since no hazardous materials are involved.

IX. HYDROLOGY AND WATER QUALITY -- Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Violate any water quality standards or waste discharge requirements?				X	14,15, 16
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pro-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X	14
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?				X	14
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				X	14
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?				X	14,15, 16
f.	Otherwise substantially degrade water quality?				X	14
g.	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X	17
h.	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X	17
i.	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X	17
j.	Inundation by seiche, tsunami, or mudflow?				X	NA

Comment: The adoption of the ordinance would not result in any impact related hydrology or water quality because it does not create run-off, nor would it affect ground water, alter drainage patterns or

place habitable structures in areas subject to flooding. Any additional impervious surface created through the development of subject facilities will be subject to NPDES C3 requirements at the subsequent development project review stage.

X. LAND USE AND PLANNING - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Physically divide an established community?				X	2
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X	2,3,8,13
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?				X	8

The adoption of this ordinance would not create any impacts to land use planning considerations. Placement of renewable energy systems would not divide a community, conflict with any land use plan or habitat conservation plan.

The City Zoning Ordinance already allows wind turbines for electricity production and consumption. The new ordinance modifies existing regulations in terms of turbine diameter (35 feet currently allowed where maximum of 25 feet allowed in proposed ordinance), turbine total height (100 feet currently allowed where maximum of 90 feet allowed in the proposed ordinance).

The proposed ordinance is consistent with Measure T, the City's Hill Area Policy. Projects proposed in the Hill Area would be subject to the Measure T provisions including Section 12, Visual Safeguards, which requires all structures to be minimized visually. It would also be subject to Section 8, Areas of Special Environmental Concern, and prevent structures in sensitive areas or on steep slopes. Projects proposed in the Hill Area would be subject to discretionary review by the Zoning Administrator or the Planning Commission depending on the type of project to ensure consistency with the City's Hill Area Policy.

XI. MINERAL RESOURCES -- Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X	8
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X	8

Comment: The adoption of the ordinance would not result in the loss of any available mineral resources or any mineral resource recovery site. Therefore there would be no impact.

XII. NOISE -- Would the project result in:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X	9, B
b.	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X	9
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X	9, B
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X	9
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X	NA
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X	NA

Comment: The City of Fremont is located in an urban area surrounded by numerous noise generating activities and facilities. The City contains two interstate highways, three State highways and numerous major arterial roadways with high traffic volumes. The City's commercial and industrial areas also generate activity that contributes to the City's overall noise environment.

Private, on-site energy systems developed through the adoption of this ordinance would be required to meet all City of Fremont noise standards as specified in the General Plan. Conformance with these impacts would ensure no impacts occur related to noise. Further, technological advances in wind energy have resulted in turbine designs that easily meet typical municipal noise requirements, including more stringent residential standards. In Fremont residential areas, a maximum of 60dBA is allowed at the property line. According to the American Wind Energy Association, modern wind turbines have better insulation, lower rotation speeds and operate much more efficiently and quietly than wind turbines of the past. Modern wind turbines emit sounds that are barely discernible given the overall ambient noise in the environment.

XIII. POPULATION AND HOUSING -- Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X	2,3
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X	2,3
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X	2,3

Comment: The adoption of this ordinance would not induce population growth or displace existing housing or people. As a result, there would be no impact to population and housing.

XIV. PUBLIC SERVICES

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
	Fire protection?				X	10
	Police protection?				X	10
	Schools?				X	10
	Parks?				X	10
	Other public facilities?				X	10

Comment: The adoption of this ordinance would not alter the provision of public services or government facilities. There would be no impact to service ratios, response times or other performance objectives for any of the public services.

XV. RECREATION

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X	12
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X	12

Comment: The adoption of this ordinance would not alter recreation services or facilities. There would be no impact from energy systems contemplated for this ordinance as they would not be allowed in regional parks.

XVI. TRANSPORTATION/TRAFFIC - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X	7
b.	Conflict with an applicable congestion management program, including, but not limited to a level of service standard standards and travel demand measures, or other standards				X	7

	established by the county congestion management agency for designated roads or highways?					
c.	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X	NA
d.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	NA
e.	Result in inadequate emergency access?				X	6
f.	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X	7

Comment: Adoption of this ordinance does not affect the capacity of the circulation systems, the roadway network, nor does it affect a congestion management program, air traffic patterns, or emergency access. Therefore, there would no impact.

XVII. UTILITIES AND SERVICE SYSTEMS - Would the project:

ISSUES:		Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Information Sources
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X	14
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	10
c.	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	14
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X	10
1	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X	10
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X	10
g.	Comply with federal, state, and local statutes and regulations related to solid waste?				X	10

Comment: The adoption of this ordinance would not affect water or wastewater systems. There would be no impact to these systems resulting from the adoption of this ordinance since the intent of the ordinance is to generate renewable energy for on-site production and consumption.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:

ISSUES:		<i>Potentially Significant Impact</i>	<i>Potentially Significant Unless Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>	<i>Information Sources</i>
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X		8
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X	2
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X	2

Comment: See comments under Biological Resources. The adoption of this ordinance does not have any cumulatively considerable impacts when viewed in conjunction with other projects. There are no known environmental effects from the installation of private renewable energy systems that would cause substantial adverse effects on human beings.

XIX. Summary of Proposed Mitigation Measures

None

XX. Earlier Analyses:

None

GENERAL SOURCE REFERENCES:

1. Existing land use.
2. City of Fremont General Plan (Land Use Element Text and Maps).
3. City of Fremont Municipal Code Title VIII (e.g. Planning and Zoning, Subdivision, Grading and Maps)
4. City of Fremont General Plan (Certified 2009 Housing Element).
5. Alquist-Priolo Earthquake Fault Zoning Act and City of Fremont General Plan (Health and Safety Chapter).
6. City of Fremont General Plan (Safety Element).
7. City of Fremont General Plan (Mobility Element).
8. City of Fremont General Plan (Conservation Element, e.g. including Biological resources, Water Resources, Land Resources, Air Quality, Energy Conservation and Renewable Energy).
9. City of Fremont General Plan (Safety Element, subsection Noise & Vibration).
10. City of Fremont General Plan (Public Facilities Element).
11. City of Fremont General Plan (Community Character Element).
12. City of Fremont General Plan (Parks and Recreation Element).
13. City of Fremont General Plan (Community Plans Element, Measure T).
14. RWQCB National Pollutant Discharge Elimination System (NPDES) Municipal Permit October 2009
15. RWQCB, Construction Storm Water General Permit, September 2009
16. Alameda Countywide Clean Water Program Hydromodification Susceptibility Map 2007
17. Flood Insurance Rate Map (FEMA online) and City of Fremont General Plan (Safety Element).
18. Hazardous Waste & Substances Sites List, consolidated by the State Department of Toxic Substances Control, Office of Environmental Information Management, by Ca./EPA, pursuant to Government Code Section 65962.5. Accessed online.
19. Department of Conservation Important Farmland Map 2009
20. City of Fremont Agricultural Preserves Lands Under Contract (2007 Map and List).
21. Bay Area Air Quality Management District: Clean Air Plan (Bay Area Ozone Strategy 2010), CEQA Guidelines 2010.
22. CARB Scoping Plan December 2008
23. City of Fremont Greenhouse Gas Emissions Inventory 2005
24. City of Fremont Municipal Code Title IV Sanitation and Health (e.g. solid waste, tree protection)
25. City of Fremont Municipal Code Title VI Public Works and Public Utilities (e.g. streets and sidewalks)
26. City of Fremont Municipal Code Title VII Building Regulations
27. City of Fremont Wireless Telecommunications Ordinance.
28. Fremont Register of Historic Resources and Inventory of Potential Historic Resources
29. Local Cultural Resource Maps (CHRIS)
30. Fremont High Fire Severity Zone Map

Project Sources:

- A. Draft Renewable Energy Ordinance, February 2012
- B. In the Public Interest: How and Why to Permit for Small Wind Systems. American Wind Energy Association, A Guide for State and Local Governments, 2008.